

**SECTION 4.11**  
**ROLLED BANK GRAVEL SURFACE**

**4.11.01--Description:** This surface shall consist of a two-course wearing surface of gravel, constructed on the prepared subbase in accordance with these specifications and in conformity with the line, grade, compacted thickness and typical cross-section shown on the plans.

**4.11.02--Materials:** The materials for this work shall conform to the requirements of Article M.02.03.

**4.11.03--Construction Methods:** The gravel for the first or bottom course shall be spread upon the prepared subbase to such depth that this course shall be of the specified depth after final compaction. If, after the material has been spread and shaped, it is found that additional binder is necessary, it shall be furnished and applied in the amount directed by the Engineer. Such binder material shall be carefully and uniformly incorporated with the material in place by scarifying, harrowing, brooming or other approved methods. The material shall then be wetted and compacted with a power roller having a mass of not less than 9100 kg or an equivalent vibratory roller or compactor, and the wetting and compacting continued until this course is thoroughly compacted to a firm, even surface. All areas of segregated course or fine material shall be removed and replaced with well-graded material as directed by the Engineer.

The compaction for each course shall be continued until the course is thoroughly compacted to a firm and uniform surface satisfactory to the Engineer.

The second or top course shall then be spread to such depth that the surface will have the specified depth after final compaction. This course shall be shaped, wetted and compacted as specified above until thoroughly compacted to a firm, even surface. Additional binder shall be added if required. The compacting and wetting shall be continued until all voids are filled and a slight wave of excess water and sand forms a grout in front of the compacting unit after which this portion may be left to dry. The surface shall be recompacted and sprinkled on succeeding days as may be necessary to bond it thoroughly.

**4.11.04--Method of Measurement:** This work will be measured for payment horizontally after required compaction and to the limits as shown on the plans, or as ordered by the Engineer. The thickness shall be as indicated on the plans or as ordered by the Engineer and within the following tolerances, -25 mm to +16 mm. Measurements to determine the thickness will be taken by the Engineer at intervals of 150 m or less along lanes and shall be considered representative of the lane. For the purpose of these measurements, a shoulder will be considered a lane. Should a thickness measurement be taken and a deficiency found, the Engineer will take such additional measurements as he considers necessary to determine the longitudinal limits of the deficiency. Areas found to be in excess of the allowable tolerances shall be corrected, as ordered, and at the Contractor's expense.

**4.11.05--Basis of Payment:** This work will be paid for at the contract unit price per cubic meter for "Rolled Bank Gravel Surface" complete in place, which price shall include all materials, tools, equipment and labor incidental thereto.

Pay Item	Pay Unit
Rolled Bank Gravel Surface	m <sup>3</sup>